



Continuing a Legacy of
Customer Focus and Innovation
functional anhydrous and hydrous aluminum silicates

Burgess Pigment

MATERIAL SAFETY DATA SHEET

Date Of Revision
30 January 2007

AIRFLOATED KAOLIN CLAY

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Burgess #80, Burgess #86, Burgess HC-77, Burgess BSC-SD

Synonyms: Air Floated Hydrous Kaolin Clay

Product use: Mineral pigment extender (or filler) used in paper coatings, paints, rubber and plastic formulations

Manufacturer: Burgess Pigment Company, 525 Beck Boulevard, P.O. Box 349, Sandersville, Georgia 31082 U.S.A.

Prepared by: Safety, Health & Environmental Manager- Daytime Phone 800-841-8999 or 478-552-2544

Emergency Phone: Call Chemtrec in the United States at 1-800-424-9300

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Component(s) (chemical & common name(s))	CAS Registry No.	EINECS No.	% (Approx.)
Hydrous Aluminum Silicate (China clay, Kaolin clay)	1332-58-7	310-194-1	>97
Titanium Dioxide	13463-67-7	236-675-5	<2
Crystalline Silica (alpha quartz)	14808-60-7	238-878-4	<1

The following R and S phrases are suggested for conservative safety programs.

This substance is not classified as dangerous according to Directive 67/548/EEC.

R phrases: R36/37, R66 S phrases: S24/25, S37/39, S38

SECTION 3 - HAZARDS IDENTIFICATION

***** WARNING *****

This product contains less than 1% but greater than 0.1% crystalline silica, a listed carcinogen.

Long-term overexposure to dust containing crystalline silica may be harmful.

Refer to Section 8 for exposure limits.

POTENTIAL HEALTH EFFECTS

Short-Term (acute):

Eye Contact: Direct contact with dust may cause irritation by mechanical abrasion.

Skin Contact: Direct contact may cause irritation by mechanical abrasion.

Inhalation: Dusts may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate limits.

Ingestion: Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation and blockage.

POTENTIAL HEALTH EFFECTS

Long-Term (chronic):

Kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). Crystalline silica, a natural and common component of many mineral products including clays, crushed stone and beach sand, is listed by the IARC (Monograph -Vol.68- 1997) as a carcinogen to humans (Group 1).

Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has caused silicosis, a lung disease. Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis can be progressive and symptoms can appear at any time, even years after the exposure has ceased.



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SECTION 3 - HAZARDS IDENTIFICATION (continued)

Symptoms of silicosis may include but are not limited to the following: shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Smoking may increase the risk of developing lung disorders including emphysema and lung cancer. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

SECTION 4 - FIRST AID MEASURES

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Skin: Wash with soap and water. Contact a physician if irritation persists or later develops.

Ingestion: If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit. Get immediate medical attention.

Inhalation: Remove to fresh air. Dust in the throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.

SECTION 5 - FIRE FIGHTING MEASURES

Physical Hazard: Non-combustible

Flammable Limits In Air: Not flammable

Flashpoint: Not flammable

Autoignition Temperature: Not flammable

Extinguishing Agents: None required

Explosion Data: Non-explosive

Unusual Fire And Explosion Hazards: None known

Sensitivity to Static Discharge: Not applicable

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Care should be taken to avoid dusting while sweeping up spilled product. Cleanup personnel should use appropriate NIOSH/MSHA approved respirators if exposures are expected above the limits listed in Section 8. Water should be used with great care as it creates a slipping hazard when mixed with this product. This product is generally non-toxic to aquatic systems but may cause high turbidity in stormwater.

No components in this product are subject to the reporting requirements of Title III of SARA, 1986, and 40 CFR 372.

SECTION 7 - HANDLING AND STORAGE

Handling: Appropriate personal protection should be used when handling (refer to Section 8). Use care when dispensing to avoid dust generation. Fold and flatten empty bags carefully to reduce dust generation. Wash hands thoroughly after handling.

Storage: Best if kept under dry conditions. Not generally affected by hot or cold storage

Specific Uses: Mineral pigment extender (or filler) used in paper coatings, paints, rubber and plastic formulations

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	Value		Limit	Reference
Kaolin 1332-58-7	2 mg/m ³	(Respirable dust)	TWA (8 hour)	ACGIH TLV-A4*
	15 mg/m ³	(Total dust)	TWA (8 hour)	OSHA PEL
	5 mg/m ³	(Respirable dust)	TWA (8 hour)	OSHA PEL
	10 mg/m ³	(Total dust)	TWA (10 hour)	NIOSH REL
	5 mg/m ³	(Respirable dust)	TWA (10 hour)	NIOSH REL
Titanium dioxide 13463-67-7	10 mg/m ³	(Respirable dust)	TWA (8 hour)	ACGIH TLV-A4*
	15 mg/m ³	(Total dust)	TWA (8 hour)	OSHA PEL
	0.2 mg/m ³	(Respirable dust)	TWA (10 hour)	NIOSH REL (X)
Crystalline silica (quartz) 14808-60-7	0.1 mg/m ³	(Respirable dust)	TWA (8 hour)	ACGIH TLV
	$\frac{30 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$	(Total dust)	TWA (8 hour)	OSHA PEL
	$\frac{10 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$	(Respirable dust)	TWA (8 hour)	OSHA PEL
	0.05 mg/m ³	(Respirable dust)	TWA (10 hour)	NIOSH REL (X)

Notes- (-A4) This indicates that Kaolin and Titanium dioxide are "Not Classifiable as a Human Carcinogens" by ACGIH. (X) This indicates that Titanium dioxide and Crystalline silica (quartz) are considered a carcinogen by NIOSH. IARC classifies Crystalline silica as a human carcinogen and NTP notes it to be "reasonably anticipated to be a carcinogen".

Exposure Controls: Respirable dust levels should be monitored regularly. Dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee work stations.

Occupational exposure controls: For respirable quartz levels that exceed or are likely to exceed and 8hr-TWA of 0.1 mg/m³, a NIOSH/MSHA approved dust respirator must be worn. For respirable quartz levels that exceed or are likely to exceed and 8hr-TWA of 0.5 mg/m³, a NIOSH/MSHA approved HEPA filter respirator must be worn. For respirable quartz levels that exceed or are likely to exceed and 8hr-TWA of 5 mg/m³, a NIOSH/MSHA approved positive pressure, full face respirator or equivalent is required. Respirator use must comply with applicable MSHA or OSHA standards which include provisions for a user training program, respirator repair and cleaning, respirator fit testing and other requirements. For hand protection any type of glove that reduces skin contact with the material is acceptable. For eye protection any type of ANSI approved glasses, goggles or face shield that reduces potential particle contact with the eyes is acceptable. No additional skin protection is required. Care should be given to reduce or eliminate dust accumulation in personal clothing.

Environmental exposure controls: Care should be given to reduce dust generation. Refer to Sections 7 and 13.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

General Information: Appearance and Odor: Off-white dry powder

Important Health, Safety and Environmental Information:

Boiling Point: N/A (Solid)	Melting Point: >1700° C	pH in Water (20% solids suspension): 3.5 - 7.5
Explosive Properties: N/A	Oxidizing Properties: N/A	Flash Point: N/A Flammability: N/A
Specific Gravity (H₂O=1): 2.6	Solubility in Water: Insoluble	Vapor Pressure (mm Hg): No Vapor
		Vapor Density (Air=1): No Vapor



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SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: This product is stable under normal storage, handling and environmental conditions.
Materials to Avoid: None known. This product is stable when used as intended by the manufacturer.
Hazardous Decomposition Products: None known. This product is stable in water.

SECTION 11 - TOXICOLOGICAL PROPERTIES

Kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). The American Conference of Governmental Industrial Hygienists (ACGIH) lists Kaolin as- Not Classifiable as a Human Carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

This product contains less than 1% but greater than 0.1% crystalline silica (quartz). The IARC (Monograph -Vol. 68-1997) classifies crystalline silica (quartz) as a human carcinogen (Group 1). There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with adverse health effects involving the kidney, scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) and other autoimmune disorders. However, this evidence has been obtained primarily from case reports involving individuals working in high exposure situations or those who have already developed silicosis; and therefore, this evidence does not conclusively prove a causal relationship between silica or silicosis and these adverse health effects. Several studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Many of these studies of silicotics do not account for lung cancer cofounders, especially smoking.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No adverse ecological effects are expected. May affect turbidity of water if discharged in large quantities to lakes or streams. See Section 15, Foreign Regulations
Mobility: This product is insoluble in water
Persistence and Degradability: This product is made from a naturally occurring, abundant, innocuous mineral.
Bioaccumulative Potential: No data available. This product is not expected to accumulate in biota.

SECTION 13 - DISPOSAL CONSIDERATIONS

Pickup and reuse clean materials, avoiding dusting situations. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations. This product is not hazardous as a waste. Check with local landfills before disposing in trash. Dispose of in closed containers to avoid dusting.

SECTION 14 - TRANSPORTATION INFORMATION

DOT Hazard Classification: None
Placard Required: None
Label Required: Use original label including all warnings. When disposing of this material in its pure form use a DOT "Non-Hazardous Waste" label.

SECTION 15 - REGULATORY INFORMATION

U.S. Federal Regulations

FDA: Kaolin (aluminum silicate, china clay, clay) is acceptable for several specific uses. See 21 CFR 73, 82, 175, 176, 177, 178, 186, 310, 335, 346, 347 and 872.

SARA Title III (EPCRTKA) Section 302: This product does not contain any extremely hazardous substances subject to the reporting requirements of 40 CFR Part 355.



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SECTION 15 - REGULATORY INFORMATION (continued)

U.S. Federal Regulations

SARA Title III (EPCRTKA) Section 311/312: This product is made from **kaolin**, listed in Table Z-1 of 29 CFR 1910.1000 "Air Contaminants" and is subject to the reporting requirements of 40 CFR Part 370 (threshold quantity of 10,000 lbs)

SARA Title III (EPCRTKA) Section 313: This product does not contain substances subject to the reporting requirements of 40 CFR Part 372.

TSCA: This product or its components are listed in or exempt from the TSCA inventory requirements. This product contains no substances subject to export notification under Section 12(b) of TSCA.

North American Regulations

Several states, provinces and territories specifically list **kaolin** and regulate dust exposure. **USA:** Alaska, Arizona, California, Idaho, Indiana, Massachusetts, Michigan, Minnesota, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, and Washington. **Canada:** Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Quebec, Saskatchewan, and Yukon. **WHIMS classification: D2A (contains crystalline silica).** **Mexico:** see national exposure limits. **For the most current regulatory information please contact the appropriate agencies in the state, province or territory where the product is used.**

California Title 22 (Proposition 65) notification: This product contains a listed carcinogen at a concentration greater than 0.1% - Silica, crystalline.

Foreign Regulations

CAS# 1332-58-7 can be found in the following registries: AICS (Australia), China Inventory, DSL (Canada), ECL (Korea), EINECS (Europe), ENCS (Japan), PICCS (Philippines), SWISS (Swiss) ERMA IIC (New Zealand).

SECTION 16 - OTHER INFORMATION

Kaolin is a naturally occurring mineral with the following chemical formula - $Al_2Si_2H_4O$,

WARNING: This product contains a substance known by the State of California to cause cancer- Crystalline Silica.

R phrases:

R36/37, R66 Irritating to eyes and respiratory system. Repeated exposure may cause skin dryness or cracking.

S phrases:

S24/25, S37/39, S38 Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. In case of insufficient ventilation wear suitable respiratory equipment.

Hazard Communication or "Right-to-know" information-

Hazardous Materials Identification System (HMIS[®] III) Ratings:

Health = 1 *	Potential lung effects from chronic over-exposure to dust
Flammability = 0	Non-flammable
Physical Hazard = 0	Non-reactive
Personal Protection Equipment = E**	

*Review and abide by suggested exposure limits. Monitor work area for potential over-exposure.

**Use NIOSH approved dust mask for dusty conditions.

Revised on 30 January 2007: Corrected US Regulatory information.